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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,767	11/18/2002	Ming-Hung Lee	MTKP0013USA	9210

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NORTH AMERICA INTERNATIONAL PATENT OFFICE (NAIPC)
P.O. BOX 506
MERRIFIELD, VA 22116

EXAMINER

AGUSTIN, PETER VINCENT

ART UNIT PAPER NUMBER

2652

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/065,767

Applicant(s)

LEE, MING-HUNG

Examiner

Peter Vincent Agustin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Replacement drawings were received on April 15, 2005. These drawings are acceptable.

Specification

2. The amendment filed April 15, 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: claims 14 & 15.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Objections

3. Claims 3 & 4 are objected to because of the following informalities:

Claim 3, line 2: "whether the spare block is defective" should be --whether each of the spare blocks are defective--.

Claim 4, line 2: "whether the spare block has been used" should be --whether each of the spare blocks have been used--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 13-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the

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specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 13 recites “calculating statistic data of the optical disk according to the status table” and claim 16 recites “calculating a distribution status”. It is not disclosed how these calculations are performed in such a way as to enable one skilled in the art to make the claimed invention.

6. Claims 14 & 15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 14 & 15 have limitations that have not been described in the specification.

Therefore, these claims constitute new matter.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 2 & 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2, lines 6-7 recite “the spare blocks”, which can refer to either the “plurality of spare blocks” in claim 1, line 3 or the first, second and third spare blocks in claim 2.

Claims 2 & 6 have sentence structures that are grammatically confusing and incomprehensible. Appropriate correction is required.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

10. Claims 1-4, 7, 8 & 10-12 are rejected under 35 U.S.C. 102(a) as being anticipated by the Applicant's admitted prior art.

In regard to claim 1, the Applicant's admitted prior art discloses a method for managing data of an optical disc (Figure 1, element 22), the optical disc having a plurality of areas (Figure 4A, areas labeled SA(n-1), DA(n-1), SA(n), DA(n) and SA(n+1)), each area having a plurality of data blocks (Dx, Dy & D1-D7) and a plurality of spare blocks (S0-S16) arranged in order, each of the data blocks being used to record data, and each of the spare blocks being capable of replacing a corresponding defective data block to record data, the method comprising: establishing a status table (DT), wherein the status table comprises a plurality of columns (e.g., columns labeled 28, 28A, 28B & 28C) arranged in order, and each of the columns is used to record a status (U, F or D) of a corresponding spare block; and recording the statuses of the spare blocks in the status table according to the arranging order of the spare blocks (e.g., see broken arrows in Figure 3); wherein, within the status table (DT), a first column (Figure 4A, column labeled U, S0, Dy) recording a status (U) of a last spare block (S0) in a first area (SA(n-1) and DA(n-1)) neighbors a second column (column labeled U, S1, D1) recording a status (U) of a first spare block (S1) in a next area (SA(n) and DA(n)).

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In regard to claim 2, the Applicant's admitted prior art discloses that when the statuses of a first spare block (Figure 4A, S1), of a second spare block (S6), and of a third spare block (S5) are respectively recorded in a first column (column labeled U, S1, D1), a second column (column labeled U, S6, D2), and a third column (column labeled U, S5, D3), the second column is located between the first column and the third column, the status of the first spare block (U) is the same as the status of the third spare block (U), and there is not any data block located between the first spare block and the third spare block, when recording the statuses of the spare blocks in the status table, if the status of the second spare block is changed, the changed status of the second spare block is recorded in one of the columns, which is located between the first column and the third column.

In regard to claim 3, the Applicant's admitted prior art discloses that each of the spare blocks could be determined whether the spare block is defective according to the data recorded in the columns (note "D" in Figure 4A).

In regard to claim 4, the Applicant's admitted prior art discloses that each of the spare blocks could be determined whether the spare block has been used to replace a corresponding defective data block according to the data recorded in the columns (note "U" in Figure 4A).

In regard to claim 7, the Applicant's admitted prior art discloses including other related data in each column of the status table (e.g., Dy & S0 in Figure 4A, which provides information regarding replacement mapping).

In regard to claim 8, the Applicant's admitted prior art discloses including an address of a substituted defective data block in a mapping field of the status table for columns having a used

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status of corresponding spare blocks (e.g., Dy & S0 in Figure 4A, which provides information regarding replacement mapping).

In regard to claim 10, the Applicant's admitted prior art discloses reading the status table from the optical disc (note that DT is stored in the disc).

In regard to claim 11, the Applicant's admitted prior art discloses writing the status table to the optical disc if the status table is changed during a session (note that DT is stored in the disc).

In regard to claim 12, the Applicant's admitted prior art discloses writing the status table to a predetermined location on the optical disc (note that DT is stored in the disc).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 5 & 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Applicant's admitted prior art in view of Satoh et al. (US 4,984,230).

For a description of the Applicant's admitted prior art, see the rejections above. Furthermore, the Applicant's admitted prior art discloses: in regard to claim 5, that the optical disc drive comprises a memory (Figure 1, element 20); and in regard to claim 9, providing a memory (Figure 1, element 20) installed in the optical disk drive. However, the Applicant's admitted prior art does not disclose: in regard to claim 5, that the memory is used for storing the status table while the status table is established; and in regard to claim 9, reading a defect table

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from the optical disc into the memory of the optical disc drive; and establishing the status table according to the defect table in the memory.

Satoh et al. disclose storing a status table in memory, reading a defect table from an optical disk into a memory of an optical disc drive, and establishing the status table according to the defect table in the memory (see column 2, lines 43-46 and lines 56-63). It would have been obvious to one of ordinary skill in the art at the time of the invention by the Applicant to have applied the teachings of Satoh et al. to the method of the Applicant's admitted prior art, the motivation being to enable reproduction/rewriting of data at a high speed (see column 3, lines 8-9).

13. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Applicant's admitted prior art.

For a description of the Applicant's admitted prior art, see the rejections above. Furthermore, in regard to claim 6, the Applicant's admitted prior art discloses that there is a defective second spare block (Figure 4A, S4) located between a first spare block (S3) and a third spare block (S5), the first spare block and the third spare block are not defective, and there is not any data block located between the first spare block and the third spare block, when recording the statuses of the spare blocks in the status table, the statuses of the first spare block, of the second spare block, and of the third spare block are respectively recorded in a first column (column labeled U, S3, D7), a second column (column labeled D, S4, -), and a third column (column labeled U, S5, D3). However, in regard to claim 6, Figure 4A of the Applicant's admitted prior art does not disclose that the second column is located between the first column and the third column.

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Figure 3 of the Applicant's admitted prior art discloses mapping spare areas into a defect table in the same order. Note that this arrangement, when applied to the embodiment of Figure 4A, will result with the claimed second column being located between the first column and the third column. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention by the Applicant to have applied the embodiment of Figure 3 for the method of Figure 4A, because either arrangement of the first, second and third columns would have been an obvious expedient, and either arrangement is well-known and expected in the art.

14. In regard to claims 13-18, no prior art rejections will be made in light of the 112-1st paragraph rejections above.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

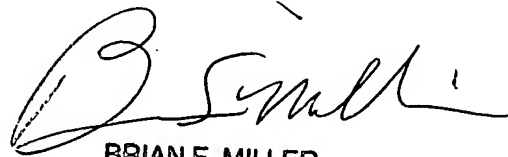
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16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Vincent Agustin whose telephone number is 571-272-7567. The examiner can normally be reached on Monday-Friday 9:30-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Peter Vincent Agustin
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BRIAN E. MILLER
PRIMARY EXAMINER